

CLAIMS

Having described my invention, I claim:

1. A ladder having removable rungs, comprising:
 - a. a vertical support column having a first wall, a second wall, a third wall and a fourth wall;
 - b. a first hole passing completely through said first wall and said third wall;
 - c. a second hole passing completely through said second wall and said fourth wall;
 - d. a first removable rung, including an insertion cylinder sized to slidably fit within said first hole, a step, and a leading protrusion extending outward from said insertion cylinder distal from said step;
 - e. a second removable rung, including an insertion cylinder sized to slidably fit within said second hole, a step, and a leading protrusion extending outward from said insertion cylinder distal from said step;
 - f. wherein said first wall of said vertical support column opens into a first admission slot proximate said first hole, sized to allow said leading protrusion on said first removable rung to slide therethrough, so that said first removable rung can be inserted into said vertical support column by placing said insertion cylinder within said first hole, sliding said leading protrusion through said first admission slot, and advancing said insertion cylinder into said first hole so that said leading protrusion eventually rests between said first wall and said third wall; and
 - g. wherein said second wall of said vertical support column opens into a second admission slot proximate said second hole, sized to allow said leading protrusion on

said second removable rung to slide therethrough, so that said second removable rung can be inserted into said vertical support column by placing said insertion cylinder within said second hole, sliding said leading protrusion through said second admission slot, and advancing said insertion cylinder into said second hole so that said leading protrusion eventually rests between said second wall and said fourth wall.

2. A ladder as recited in claim 1, further comprising locking means moveable between an unlocked position wherein said removable rungs can be inserted in said column, and a locked position wherein said removable rungs cannot be inserted in said column.
3. A ladder as recited in claim 2, wherein said locking means comprises:
 - a. a locking slide, slidably disposed with respect to said vertical support column, and having an unlocked position where said removable rungs can be inserted in said column, and a locked position where said removable rungs cannot be inserted in said column;
 - b. wherein said locking slide has a first notch, positioned to align with said first hole when said locking slide is in said unlocked position, and positioned to obstruct said first hole when said locking slide is in said locked position;
 - c. wherein said locking slide has a second notch, positioned to align with said second hole when said locking slide is in said unlocked position, and positioned to obstruct said second hole when said locking slide is in said locked position; and
 - d. means for locking said locking slide in said locked position.

4. A ladder as recited in claim 1, wherein:
 - a. said first hole has an intersection with said first wall and an intersection with said third wall, and wherein said intersection with said first wall is higher than said intersection with said third wall so that said first hole is inclined from the horizontal; and
 - b. said second hole has an intersection with said second wall and an intersection with said fourth wall, and wherein said intersection with said first second is higher than said intersection with said fourth wall so that said second hole is inclined from the horizontal.

5. A ladder having a removable rung, comprising:
 - a. a vertical support column having a first wall and a second wall;
 - b. a hole passing completely through said first wall and said second wall;
 - c. a removable rung, including an insertion cylinder sized to slidably fit within said hole, a step, and a leading protrusion extending outward from said insertion cylinder distal from said step;
 - d. wherein said first wall of said vertical support column opens into an admission slot proximate said hole, sized to allow said leading protrusion on said removable rung to slide therethrough, so that said
 - e. wherein said removable rung includes a trailing protrusion, extending from said insertion cylinder in a position proximate said step;

- f. wherein said removable rung includes a stabilizing protrusion, extending from said insertion cylinder in a position between said leading protrusion and said trailing protrusion;
 - g. wherein said trailing protrusion is angularly offset from said leading protrusion; and
 - h. wherein said stabilizing protrusion is angularly aligned with said leading protrusion, so that said removable rung can be inserted into said vertical support column by placing said insertion cylinder within said hole, sliding said leading protrusion and said stabilizing protrusion completely through said admission slot, rotating said insertion cylinder in order to align said trailing protrusion with said admission slot, and advancing said insertion cylinder into said hole so that said trailing protrusion rests within said admission slot, and said leading protrusion and said stabilizing protrusion rest between said first wall and said second wall.
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- 6. A ladder as recited in claim 5, wherein said step is angularly offset from said insertion cylinder.
 - 7. A ladder as recited in claim 5, wherein said step is linearly offset from said insertion cylinder.
 - 8. A ladder as recited in claim 1, further comprising means for securing said ladder to an object to be climbed.
 - 9. A ladder as recited in claim 2, further comprising means for securing said ladder to an object to be climbed.

10. A ladder as recited in claim 3, further comprising means for securing said ladder to an object to be climbed.
11. A ladder as recited in claim 4, further comprising means for securing said ladder to an object to be climbed.
12. A ladder as recited in claim 5, further comprising means for securing said ladder to an object to be climbed.
13. A ladder as recited in claim 6, further comprising means for securing said ladder to an object to be climbed.
14. A ladder as recited in claim 7, further comprising means for securing said ladder to an object to be climbed.
15. A ladder having a removable rung, comprising:
 - a. a vertical support column having a first wall and a second wall;
 - b. a hole passing completely through said first wall and said second wall;
 - c. a removable rung, including an insertion cylinder sized to slidably fit within said hole, a step, and an elongated rib extending outward from said insertion cylinder distal from said step;

- d. wherein said first wall of said vertical support column opens into an admission slot proximate said hole, sized to allow said elongated rib on said removable rung to slide therethrough, so that said
 - e. wherein said removable rung includes a trailing protrusion, extending from said insertion cylinder in a position proximate said step;
 - f. wherein said trailing protrusion is angularly offset from said elongated rib, so that said removable rung can be inserted into said vertical support column by placing said insertion cylinder within said hole, sliding said elongated rib completely through said admission slot, rotating said insertion cylinder in order to align said trailing protrusion with said admission slot, and advancing said insertion cylinder into said hole so that said trailing protrusion rests within said admission slot, and said elongated rib rests between said first wall and said second wall.
16. A ladder as recited in claim 5, further comprising a gusset, extending outward from said step, and positioned to bear against said first wall when said removable rung is installed in said hole.

17. A ladder having a removable rung, comprising:
 - a. a vertical support column having a first wall and a second wall;
 - b. a hole passing completely through said first wall and said second wall;
 - c. a removable rung, including an insertion cylinder sized to slidably fit within said hole, a step, and a leading protrusion extending outward from said insertion cylinder distal from said step;
 - d. wherein said first wall of said vertical support column opens into an admission slot proximate said hole, sized to allow said leading protrusion on said removable rung to slide therethrough, so that said
 - e. wherein said removable rung has a split protrusion located proximate said step, wherein said split protrusion includes
 - I. a first prong proximate said leading protrusion;
 - ii. a second prong distal to said leading protrusion;
 - iii. wherein said first and second prongs join to form a notch; and
 - iv. biasing means for urging said notch away from said insertion cylinder.
18. A ladder as recited in claim 17, wherein said split protrusion is angularly displaced from said leading protrusion.
19. A ladder as recited in claim 17, wherein said removable rung further comprises a stabilizing protrusion.